What is claimed is:

1. In a transaction system, a data entity describing a reservable service (reservable) as recurring intervals in a span of time (time-span), comprising:

an indication of the time-span nature of the entity;

an indication of the service offered by the reservable;

an indication of a time period redundancy in the time-span; and

an indication of the occurrence of the interval in each redundancy time period, wherein the data entity is one of two variables in an algebraic function for determining a state of engagement of all or a portion of the entity.

2. The data entity of claim 1, wherein the entity is expressed in the form of Extensible Markup Language (XML).

3. The data entity of claim 1, wherein the entity is expressed in the form of one of a class of SGML-based languages including XML.

4. The data entity of claim 3, wherein the indication of time period redundancy comprises one of hourly, daily, weekly, monthly, yearly, weekdays, or weekends.

5. The data entity of claim 3, wherein redundancy is defined by exclusion.

6. The data entity of claim 3, further comprising an indication of one or both of a supplier or a resource associated with the supplier.

7. The data entity of claim 3, wherein the entity once formed may be subsequently divided into a plurality data entities as a result of the algebraic computation.

8. In a transaction system, a data entity describing an engaged service or portion thereof (engagement) as a discrete time-based entity, comprising:

an indication of the engagement nature of the entity;

an indication of the service to be performed;

an indication of a start and end time for the engagement; and

an indication of a date for consummation of the engagement, wherein the data entity is expressed as a result of algebraic computation between two variables in an algebraic function for determining a state of engagement of all or a portion of the reservable of claim 3.

9. The data entity of claim 8 further comprising an indication of a customer scheduled to receive the service and one or both of a resource or a supplier scheduled to provide the service.

10. The data entity of claim 9, wherein the entity is expressed in the form of Extensible Markup Language (XML).

11. The data entity of claim 9,wherein the entity is expressed in the form of one of a class of SGML-based languages including XML.

12. In a transaction system, a data entity describing a request for service, comprising:

an indication of the service requested;

an identification of the requesting party; and

an indication of a data and time for the service to be performed, wherein the data entity is one of two variables in an algebraic function for determining a state of engagement of all or a portion of the entity of claim 3.

13. The data entity of claim 12, wherein the entity is expressed in the form of Extensible Markup Language (XML).

14. The data entity of claim 12,wherein the entity is expressed in the form of one of a class of SGML-based languages including XML.

15. The data entity of claim 14 further comprising an indication of an expected price.

16. In a transaction system, a defined Extensible Markup Language (XML) algebra, comprising:

a first XML time-span expression describing a reservable service (reservable) expressed as intervals in a timeline;

a second XML expression describing a requested service (request), including a desired date and time; and

XML operators for processing the first and second XML expressions to produce a new XML expression.

17. The time-span algebra of claim 16 wherein the operators comprise an Intersect operator for comparing the first and second XML expressions, determining presence of a valid Intersection, meaning that the first XML expression (reservable) completely overlaps in time the second XML

expression (request), indicating that the reservable is a candidate to fulfill the request.

18. The time-span algebra of claim 17, wherein the first XML expression has a Start time point, and the operators comprise a Smear operator, which functions to alter the first XML expression by extending the Start time by a specified amount.

19. The time-span algebra of claim 18, wherein the operators include a Translate operator that functions to translate the first XML expression either forward or backward in time.

20. The time-span algebra of claim 19, wherein the operators include a Union operator that functions to return a union of two first XML time-span expressions defining two different time-spans.

21. The time-span algebra of claim 20, wherein the operators include a Subtract operator that functions to subtract a first time-span XML expression from another time-span XML expression, returning a time-span XML expression of the difference.

22. The time-span algebra of claim 21, wherein the operators include an Inverse operator that functions to return the Inverse of a given time-span XML expression.

23. The time-span algebra of claim 22, wherein the operators include a Sizefilter operator that functions to filter out of a time-span XML expression all spans that are smaller than a specified duration.

24. The time-span algebra of claim 23, wherein the operators include a Sizefilter operator that functions to represent a reference to a second time-span XML expression from a first time-span XML expression.

25. A method for matching reservable services (reservables) with requests for service (requests) in a transaction system, comprising the steps of:

(a) representing reservables as time intervals in a time-span expressed in an Extensible Markup Language (XML) expression, and storing the reservables in a database;

(b) eliciting from a customer a request as an XML expression including a desired date and time; and

(c) searching the database for intersections between reservables and the request to present candidate reservable service-offers to the customer.

26. The method of claim 18 further comprising a step for creating an XML engagement expression (engagement) from the intersection of a reservable and a request expression, wherein the engagement expression defines a service to be performed for the customer at a specified time and place.